VOICE-RELATED QUALITY OF LIFE: IMPACT OF A SPEECH-LANGUAGE PATHOLOGY INTERVENTION WITH TEACHERS

Qualidade de vida relacionada à voz: impacto de uma ação fonoaudiológica com professores

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ABSTRACT

Purpose: to evaluate the impact of speech voice on teacher's life quality. **Methods:** a quantitative quasi-experimental study carried out with 20 elementary school teachers from three public schools in the city of Goiania. Teachers were asked to answer Voice Complain Protocol and those who had three complaints participated in three-monthly meetings addressing aspects of voice production, and the conditions and organization of teaching. Protocols Complaints V-RQOL – Voice Related Qualit of Life forms - were applied moments before and after phonological action. **Results:** regarding the vocal complaints there was an increased perception regarding voice loss, unpleasant sensations, allergies, irritations or inflammations, and shortness of breath while speaking. There was a decrease of: voice failures, burning or pain, hoarseness and/or cough, effort to speak, and dry throat. Regarding the V-RQOL vocal self-assessment remained virtually unchanged, but there was a slight increase in the global and physical average scores and decrease in the social-emotional domain (not significant). **Conclusion:** the speech-language action favored perceptions about the voice, decreased complaints and produced mild improvement of the voice on the teachers' life quality, considering the physical and the global V-RQOL

KEYWORDS: Life Quality; Voice; Faculty

INTRODUCTION

The voice is an important resource in teaching, as well as a relevant form of expression with others and an important bond in the teacher-student relationship[1-3].

The concern with the voice of teachers has been the constant focus of several studies in Speech-Language Pathology, since they are among the professional at higher risk of developing work-related voice disorders[3].

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The health-illness process of teachers is based on each worker's way of life and is related to quality of life, which is considered a central analytic category in the investigation of the connections among the multiple dimensions of the relationship between health and work, also promoting integrative and interdisciplinary approaches in the promotion of health and vocal well-being [3,4].

A systematic review study of the literature on voice-related quality of life of teachers[5] showed that there are few studies that concern the voice-related quality of life of teachers, with unequal distribution among the Education Levels (Preschool and Elementary/Middle School, High School and College Education) and types of school (Public or Private).

Voice-related quality of life is a subsidy to understand what perception the subject has in regard to his own voice and his reactions to voice disorders[6].

The Voice-Related Quality of Life Questionnaire (V-RQOL)[7] was developed to measure the

relationship of voice and quality of life; the instrument was translated and adapted by Behlau *et al.*[8] and validated by Gasparini[9]. The V-RQOL was the most widely used instrument with teachers, in studies focusing on the relationships between voice and quality of life [4-6, 10-14].

Gillivan-Murphy *et al*[11] conducted an intervention study with 20 primary and secondary school teachers in Ireland who reported voice disorders. Eleven participated in the control group and nine in the group that underwent treatment. The following questionnaires were used: Voice-Related Quality of Life (V-RQOL), Voice Symptom Severity Scale (VOISS) and the Voice Care Knowledge Visual Analogue Scale (VAS), this last one was used to assess the changes regarding the voice; the instruments were completed before and after intervention. A combined approach, with vocal function exercises and vocal hygiene guidelines was conducted for a period of eight weeks. Before the treatment, there was no significant difference between the groups in the V-RQOL, *VOISS* and *VAS*. After the intervention, both groups improved their scores in both the V-RQOL and the VOISS, though this change was only significant in the treatment group. There was significant improvement in all VAS scores in the treatment group and in the VOISS total score between the control and treatment Groups. The V-RQOL did not show a statistically significant difference between the groups. There was a significant difference regarding the knowledge of voice production mechanisms in the group submitted to the intervention. This study suggests that the vocal function exercises and the vocal hygiene guidelines decrease voice symptoms and improve the care for the voice of teachers.

A review study that analyzed the education processes of the group actions towards the health of teachers' voices[15] showed that the contents and subjects that are prioritized in educational actions generally involve vocal behaviors, habits and vocal health/hygiene care, vocal exercises and techniques and ideas about the anatomy and physiology of voice production. The study showed that there are few works that contemplate subjects concerning the conditions and organization of the work of teachers and they, generally, do not advance beyond learning-teaching strategies and do not involve the school community. The authors point out the need for advances, for a review and reform of Speech-Language Pathology actions in teachers' vocal health, from the standpoint of a broader view of the health-illness process and the understanding of the relationships between health, work and quality of life, in the perspective of health promotion and the construction of healthy public policies.

Thus, it is important that Speech-Language Pathology actions should be conceived as social spaces and health education processes that will enable the promotion of awareness, attention and the perception of teachers about his own voice, of the expressivity of teachers and health promotion regarding discussions and reflections upon the associations between health, work and quality of life in school.

In this perspective, the groups of Voice Practice have proved to be potential spaces for health promotion and should be conceived in such a way as to offer opportunities for the creation of awareness, reflection, dialogue and discussions regarding work and quality of life of teachers, in order to promote changes with implications in both general and vocal health [16-19].

Therefore, the purpose of this paper was to verify the impact of a Speech-Language Pathology action in quality of life related to the voice of teachers.

METHODS

This is a quasi-experimental, quantitative study. Its subjects were 20 Elementary and Middle School teachers from three public schools in the city of Goiânia (GO).

All involved teachers signed the Free Consent Term, and the study was approved by the Research Ethics Committee CEP/UFGOIÁS under number 308/2010 of 02/28/2011.

The inclusion criteria for the study were being an Elementary or Middle school teacher at the public school system of Goiânia (GO), working in three specific schools in 2011 and having voice complaints. The participating schools were those open to the study by the respective Principals.

Teachers who were on medical leave, licensed, or had been removed from their functions or were carrying out other activity outside the classroom were excluded from the study. Those who did not have the isolated complaint of vocal strain and/or up to three complaints in the Voice Complaint Protocol were also excluded.

The process of subject selection for the study involved several instruments and stages.

The first stage was a survey of voice complaints, conducted using the Voice Complaint Protocol[20]. This instrument poses the following question: "Which symptoms do you usually have?" with the following answer possibilities: vocal fatigue tiredness, hoarseness, complete voice loss, changes in voice quality after speaking or singing, unpleasant sensation when using the voice, painful or stinging throat upon voice use, phlegm, cough, vocal strain when speaking, dry or irritated throat

sensation, allergies, irritation or inflammation of the upper airways, shortness of breath when speaking.

The Voice Complaint Protocol was completed by 41 teachers, and this instrument was used to select the subjects who would be submitted to a Speech-Language Pathology action of practical voice activities[16,19]. The participants of this stage were 16 teachers from school 1 (morning and afternoon); 13 teachers from school 2 (morning) and 12 from school 3 (afternoon).

The criteria to participate in the practical voice activity was reporting, in the Voice Complaint Protocol, an isolated complaint of vocal fatigue and/or three or more voice complaints; since Oliveira[21] states that the presence of three or more symptoms has been considered indicative of risk of voice disorder and that special attention should be paid to vocal fatigue, even if it is an isolated complaint.

Among the teachers of the first school, 8 had a minimum of 3 voice complaints and, 1 left the school afterwards, so that 7 teachers participated in the Speech-Language Pathology action. Seven teachers from the second school had a minimum of 3 voice complaints; one left the school and another was away on license, so that 5 took part of the Speech-Language Pathology action. From the third school 8 had voice complaints and all of them participated of the Speech-Language Pathology action.

At the beginning of the practical voice activity, the teachers answered the Voice-Related Quality of Life Protocol (V-RQOL) that is based on subjectivity, interpretation and the representation of the perception of voice in relation to quality of life and has characteristics that enable its measurement[8]. This instrument involves only tem items and one isolated question (how do you evaluate your voice?), with five answer possibilities: *excellent, very good, good, fair* and *bad*, scoring from one to five, where one is "excellent" and five is "bad". The remaining nine questions relate quality of life and voice involving Physical (questions 1,2,3,6,7 and 9), Social-Emotional (4,5,8 and 10) and Global domains, where the last encompasses the previous two.

The group of subjects in this study, composed by 20 teachers, was submitted to a Speech-Language Pathology action characterized as a practical activity in voice, developed in each involved school in a total of three meetings (monthly meetings during three months, between August and October), lasting 45-50 minutes each. The meetings were conducted in the schools in the morning and afternoon, using the specific time directed for teachers to develop specific educational activities as a group (HTPC).

The discussions were conducted based on previously planned questions involving aspects concerning voice usage and the conditions and organization of the work of teachers, as shown below.

The 1st meeting had two questions guiding the discussion: 1. "What do you think about the use of the voice in the profession" (involving aspects related to environmental and organizational aspects of the work of teachers that influence their performance). 2. "What do you think of your vocie?" The sentences were written in large signs and posted on the board in order to direct discussions.

The 2nd meeting had the following questions: 1. "Do you know how the voice is produced?" 2. "How do you take care of your voice?" In this meeting, the researcher used slides with information on voice production and how to care for the voice, and conducted vocal warm up and cool-down exercises with the teachers. The voice warm up exercises involved body stretching (neck stretching with sound, shoulder elevation and rotation), breathing with emission of fricative sounds, resonance (production of /m/ sound associated to vowels and in echo), tongue and lip vibration techniques and Reading tongue-twisters with over-enunciation. For vocal cool down, yawning and chanted speech were emphasized. The teachers were provided with handouts with "basic breathing tips for voice" and "tips to improve your vocal flexibility" [22].

In the 3rd meeting, the teachers were asked to: 1. "Talk about the quality of interpersonal relationships, demands and pressures, teachers' autonomy, the impacts on mental health, sleep/rest and stress". The discussions focused on the factors related to the work of teachers, the relationships with health and the quality of life of teachers.

The discussions were filmed and recorded using a digital camera by Sony, type DSC-W350; and were later transcribed.

After the three meetings the subjects completed, once again, the Voice Complaint Protocol and the V-RQOL.

This study shows the descriptive analysis of the answers to the questions in the Voice-Complaint Protocol and the V-RQOL, as well as the scores for the global, physical and social-emotional domains of the V-RQOL. The results from before and after the Speech-Language Pathology intervention are also compared.

Protocol data treatment occurred through storage in an electronic spreadsheet and the analysis was conducted using the SPSS-18 statistical software, available at the institution's computer laboratory.

Non-Parametric tests according to each case were used to compare the answers from before and after Speech-Language Pathology Intervention. In order to verify the differences between the

frequencies of individuals present in each study group, the chi-square test was used. The Wilcoxon Test[23] was used to verify the statistically significant differences between the scores obtained in each protocol. This test enables to assess whether there is a statistically significant difference between the post means of two paired conditions, composed by the same group of subjects. In order to verify if there was a statistically significant difference among the mean posts of the conditions regarding voice complaints and voice-related quality of life with the social-demographic variables (sex, age, number of work hours, number of schools where the subject teaches and time in the profession), the Kruskal-Wallis Test was conducted. The considered level of significance was $p \leq 0.05$.

RESULTS

The descriptive analysis showed that, of the 20 studied teachers, 14 are females and 6 are males; the predominant age group was between 20 and 30 years (8 teachers); 11 subjects teach during 40 hours per week; 12 work in a single school and 10 teachers had been working in the field between 9 and 25 years.

Table 1 shows voice complaints before and after intervention. There was an increase in the perception of the symptoms of voice loss, unpleasant sensation when using the voice, allergies, irritations or inflammations of the upper airways and shortage of breath when speaking. The perception of vocal fatigue and hoarseness remained the same. There was a decrease in the symptoms “voice breaks”, “stinging sensation or pain when using the voice”, “phlegm and/or cough”, “vocal strain” and “dry throat sensation”.

Table 2 shows the descriptive analysis of the answers to the vocal self-assessment question of the V-RQOL before and after Speech-Language Pathology intervention. It may be seen that the results remained practically the same, with the improvement of only one subject, who went from “fair” to “good”.

Table 1 – Descriptive analysis of voice complaints before and after Speech-Language Pathology (SLP) intervention

VOICE COMPLAINTS		Before SLP intervention		After SLP intervention	
		n	%	n	%
Fatigue	Yes	12	60	12	60
	No	8	40	8	40
Hoarseness	Yes	13	65	13	65
	No	7	35	7	35
Voice loss	Yes	1	5	11	55
	No	19	95	9	45
Breaking voice	Yes	16	80	1	5
	No	4	20	19	95
Unpleasant sensation while using the voice	Yes	6	30	11	55
	No	14	70	9	45
Stinging or pain in throat while using the voice	Yes	6	30	5	25
	No	14	70	15	75
Phlegm and/or cough	Yes	13	65	8	40
	No	7	35	12	60
Strained speech	Yes	11	55	8	40
	No	9	45	12	60
Dry throat sensation	Yes	17	85	9	45
	No	3	15	11	55
Allergies, irritations or inflammations of the upper airways	Yes	9	45	15	75
	No	11	55	5	25
Shortage of breath when speaking	Yes	8	40	9	45
	No	12	60	11	25

There was no statistically significant difference regarding voice complaints before and after Speech-Language Pathology intervention ($p>0.05$).

Table 2 – Descriptive analysis of vocal self-evaluation before and after Speech-Language Pathology (SLP) intervention

	BEFORE SLP INTERVENTION		AFTER SLP INTERVENTION	
	n	%	n	%
Very good	5	25	5	25
Good	7	35	8	40
Fair	7	35	6	30
Poor	1	5	1	5

There was no statistically significant difference regarding vocal self-evaluation before and after Speech-Language Pathology intervention (p>0.05).

The descriptive analysis of the V-RQOL domains (physical, social-emotional and global) for each subject, before and after Speech-Language Pathology intervention is shown in Table 3. There was a slight improvement of the impact of voice on quality of life, considering the physical and global domains of the V-RQOL. It may be seen that there was a decrease in the values of the social-emotional domain.

Table 3 – Descriptive analysis of the teachers' scores on the V-RQOL domains (Social-emotional, Physical and Global) before and after Speech-Language Pathology (SLP) intervention (%)

Teacher	BEFORE SLP INTERVENTION			AFTER SLP INTERVENTION		
	Social-emotional	Physical	Global	Social-emotional	Physical	Global
T1	87.5	91.67	95	87.5	58.33	67.5
T2*	100	66.67	77.5	100	12.5	25
T3	81.25	79.17	85	75	100	100
T4	81.25	50	65	87.5	87.5	92.5
T5	81.25	33.33	47.5	87.5	54.17	52.5
T6*	87.5	79.17	82.5	87.5	75	75
T7*	75	87.5	90	75	70.83	72.5
T8	93.75	66.67	80	93.75	70.83	82.5
T9	75	95.83	97.5	87.5	100	100
T10	87.5	79.17	77.5	87.5	83.33	85
T11	100	50	57.5	75	79.17	85
T12	100	16.67	25	100	45.83	55
T13	93.75	62.5	70	81.25	79.17	87.5
T14	93.75	87.5	92.5	87.5	79.17	87.5
T15*	87.5	83.33	77.5	87.5	70.83	67.5
T16	87.5	91.67	95	81.25	91.67	95
T17	75	79.17	87.5	75	79.17	87.5
T18	93.75	54.17	57.5	93.75	58.33	65
T19	100	54.17	57.5	81.25	70.83	65
T20	81.25	91.67	95	81.25	95.83	97.5
MEAN	88.13	70.00	75.63	85.63	73.12	77.25

The teachers (T) signaled with a * had a significant difference in answers before and after Speech-Language Therapy intervention (p<0.05).

Regarding the degree of the intensity of the damage in voice-related quality of life, Table 4 shows the results according to impact [24]. It may be seen that most teachers had low voice impact on quality of life in both global and physical domains, while in the social-emotional domain, there was medium impact. There was improvement in the global domain, and a small decrease of scores in the physical and social emotional domains after the intervention, when comparing both moments.

Table 4 – Descriptive analysis of the impacts on the Global, Social-emotional and Physical domains before and after Speech-Language Pathology intervention

CATEGORIES (%)	Global		Social-emotional		Physical	
	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
Low impact (81 to 100)	9	11	17	16	7	6
Medium impact (61 to 80)	6	6	3	4	7	9
High impact (< 60)	5	3	0	0	6	5

There was no statistically significant difference in the Global, Social-emotional and Physical domains before and after intervention (p>0.05).

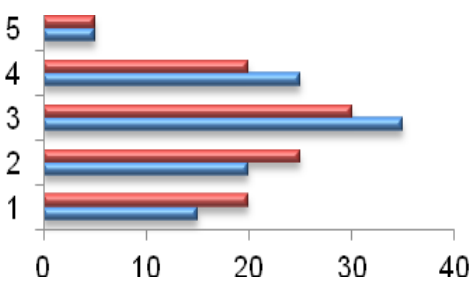
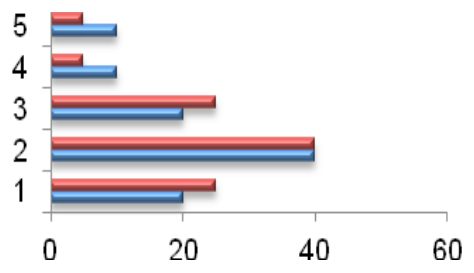
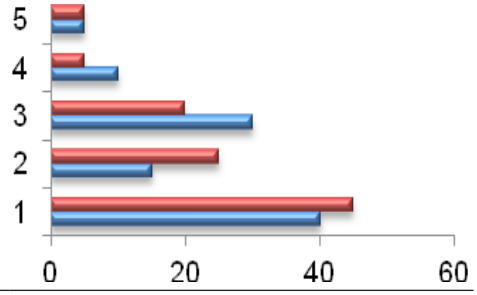
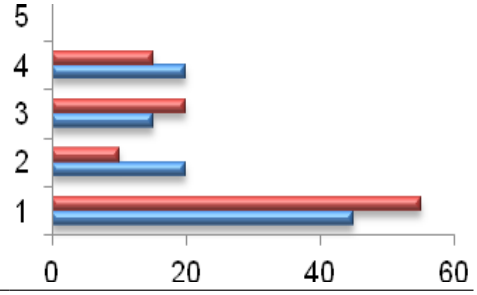
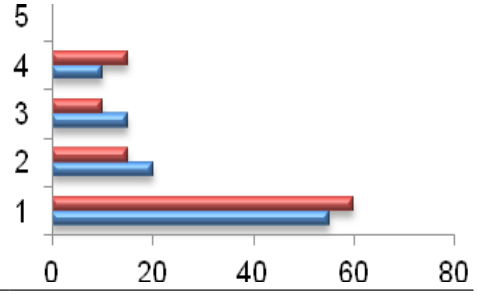
Table 5 shows the descriptive analysis of the results for each item of the V-RQOL. The difficulties in the physical domain are more evident, namely speaking loudly or being heard in noisy environments (30%); having problems at work/profession due to the voice (25%); quickly running out of air and feeling the need to breath many times while speaking (25%) and not knowing how the voice will come out when beginning to speak (20%). In the social-emotional domain, the most relevant question refers to feeling anxious or frustrated because of the voice (20%).

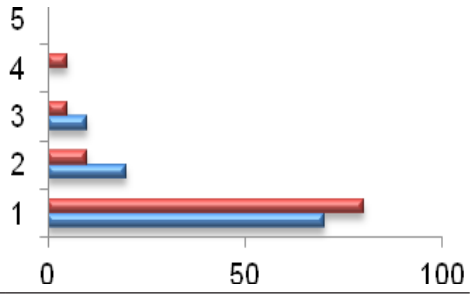
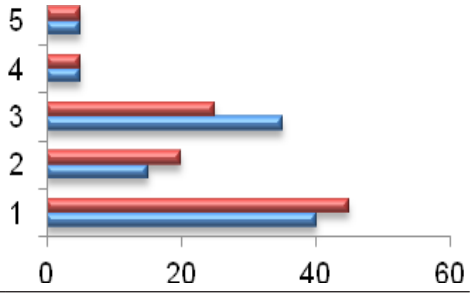
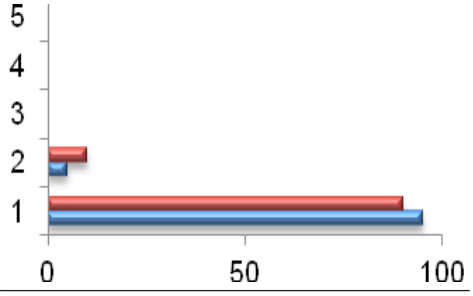
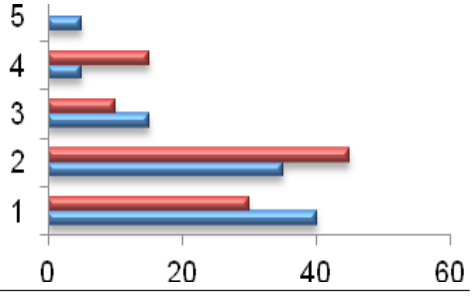
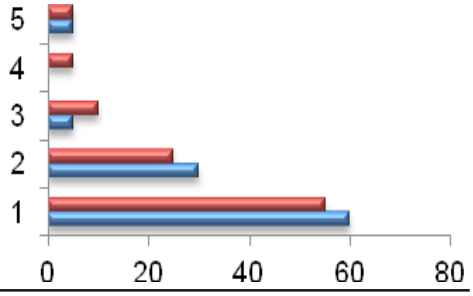
The analysis showed a statistically significant difference in both moments of data collection regarding some post measurements of voice complaints: QV3, QV4, QV7, QV9 and QV10. Thus, it may be stated that voice complaints regarding voice loss, voice breaks, phlegm or cough, dry throat, allergies, irritations or inflammations of the upper airways had statistically significant difference in their mean posts, before and after Speech-Language Pathology intervention.

There was a statistically significant difference only in regard to the teacher working in more than one school and voice-related qualoty of life regarding feeling anxious and frustrated because of the voice; being depressed because of the voice; difficulties in speaking on the telephone; and avoiding going out socially because of the voice.

However, in regard to the other social-demographic variables, there was no statistically significant difference in the way of perceiving voice complaints and voice-related quality of life.

Table 5 – Descriptive analysis of the answers to the V-RQOL items before and after Speech-Language Pathology (SLP) intervention

V-RQOL QUESTIONS	How much of a problem is this?[1]	BEFORE SLP intervention N	%	AFTER SLP Intervention N	%	BEFORE (red) AFTER (blue)
1- I have trouble speaking loudly or being heard in noisy situations	***1***	3	15	4	20	
	2	4	20	5	25	
	3	7	**35**	6	**30**	
	4	5	25	4	20	
	5	1	5	1	5	
2- I run out o fair and need to take frequent breaths while talking	***1***	4	20	5	25	
	2	8	**40**	8	**40**	
	3	4	20	5	25	
	4	2	10	1	5	
	5	2	10	1	5	
3- I sometimes do not know what will come out when I start speaking	***1***	8	**40**	9	**45**	
	2	3	15	5	25	
	3	6	30	4	20	
	4	2	10	1	5	
	5	1	5	1	5	
4- I am sometimes anxious or frustrated (because of my voice)*	***1***	9	**45**	11	**55**	
	2	4	20	2	10	
	3	3	15	4	20	
	4	4	20	3	15	
	5	0	0	0	0	
5- I sometimes get depressed (because of my voice)*	***1***	11	**55**	12	**60**	
	2	4	20	3	15	
	3	3	15	2	10	
	4	2	10	3	15	
	5	0	0	0	0	

6-I have trouble using the telephone (because of my voice)*	***1***	14	**70**	16	**80**	
	2	4	20	2	10	
	3	2	10	1	5	
	4	0	0	1	5	
	5	0	0	0	0	
7- I have trouble doing my job or practicing my profession (because of my voice)	***1***	8	**40**	9	**45**	
	2	3	15	4	20	
	3	7	35	5	25	
	4	1	5	1	5	
	5	1	5	1	5	
8- I avoid going out socially (because of my voice)*	***1***	19	**95**	18	**90**	
	2	1	5	2	10	
	3	0	0	0	0	
	4	0	0	0	0	
	5	0	0	0	0	
9- I have to repeat myself to be understood	***1***	8	**40**	6	30	
	2	7	35	9	**45**	
	3	3	15	2	10	
	4	1	5	3	15	
	5	1	5	0	0	
10- I have become less outgoing (because of my voice)	***1***	12	**60**	11	**55**	
	2	6	30	5	25	
	3	1	5	2	10	
	4	0	0	1	5	
	5	1	5	1	5	

[1]**Key: "**How much of a problem is this?"**- *1*** (Not a problem); ***2*** (A small amount); ***3*** (A moderate/medium problem); ***4*** (a lot); ***5*** (Problem is "as bad as it can be").
*Had a significant difference between the before and after groups (Kruskal Wallis test, ***p<0.05***).

DISCUSSION

The increase in the perception of voice loss, unpleasant sensation while using the voice, allergies, irritations or inflammations of the upper airways and shortage of breath when speaking, evidenced in Table 1, may be explained by the fact that the practical voice activity took place during a dry climate period, with air humidity levels below adequate levels. The moment after the intervention (October, 2011) coincided with a period when the city of Goiânia registered the lowest level of relative air humidity in history (8%) while adequate levels would range from 20% to 60%[25]. Low relative air humidity favors irritations and inflammations of the upper airways[26]. This specific period, in the school academic year, also coincides with a higher demand of Educational activities, assessment planning and development, facing students with difficulties and high levels of stress.

Regarding the decrease in symptoms of "voice breaks", "stinging sensation or throat pain when using the voice", "phlegm and/or cough", "vocal strain" and "dry throat", it may be the result of the teachers having applied some vocal care measures and having performed vocal function exercises (especially vocal warm up) exposed during the practical voice activity. This may have impacted the improvement of the voice self-assessment reported by one subject (Table 2). Other national and international studies[27,28] have also reported similar results regarding the same complaints.

The decrease in the values of the social-emotional domain (Table 3) indicates that the Speech-Language Pathology intervention enabled a better perception of the teachers regarding voice and its uses in social contexts, as well as the emotional aspects that are involved. The Speech-Language Pathology intervention may have contributed towards the development of attention and awareness of the relationships between voice and quality of life so that the subjects, during reassessment, proved more critical and sensitive regarding the impacts of voice in social life and in emotions, as was also observed in the study by Silvério *et al*[19] .

In regard to the issue of vocal self-evaluation, the results of this study were similar to those in studies such as those by Penteado and Bicudo-Pereira[4] and by Servilha and Roccon[13]. However, these studies differ from that by Fabrício, Kasama and Martinez[6], since, in the latter, the highest percentages found regarding vocal self-evaluation were of *very good* (42%) and *good* (34%) voices.

Generally speaking, it may be said that most of the evaluated teachers who are currently at work, perceive a voice that varies between *fair* and *good,* before as well as after the Speech-language Pathology intervention. It may also be stated that even though teachers may have a few complaints, these are still not enough to harm their vocal performance in the classroom. If teachers had more serious voice disorders, then they might, perhaps, perceive the disorder as harmful to their job[3].

As for the way of categorizing voice-related quality of life[24] teachers' perceptions regarding their voices is that, there was an improvement in the global and physical domains and a deterioration of scores in the social-emotional domain upon the Speech-Language Pathology intervention. The question that remains is: whether this deterioration in the scores of the social-emotional domain is due to the fact that the teachers, before the intervention, may not have been aware that the symptoms may relate to vocal quality of life. If this is the reason, then the intervention was probably an important tool to maintain voice-related quality of life.

The slight deterioration in the physical and social-emotional domains, shown in Table 4, may be a result of the learning and awareness processes, built and developed during the Speech-Language Pathology intervention and related to the symptoms that are a part of the identification and characterization of voice disorders.

The data in Table 5 show that the difficulties related to voice production pay a more important role for teachers than the factors in the social-emotional domain.

The questions where the subjects presented more difficulty were also observed in previous studies[4,12,13,29,30]. Teaching demands a good coordination between speech and breathing, breath support, vocal resistance and ability to use one's voice in high intensity in order to be heard in noisy environments and, when this does not occur in a satisfactory way, alongside difficulties with expressivity, there may be problems at work or to teach, because of the voice.

There was a statistically significant difference only regarding teachers working in more than one school as well as voice-related quality of life involving the questions about feeling anxious and frustrated because of the voice being depressed because of the voice; having difficulties speaking on the telephone; and avoiding going out socially because of the voice. This is possibly due to more work hours and greater work demand, causing more stress for the teacher. Moreover, the fact of working in more than one school involves time and commuting, that turn into shorter breaks for meals and rest. Furthermore, teaching for several periods may also interfere in teachers' quality family time

and social life, with less time and disposition to care for his own general and vocal health and with an impact of negative feelings such as tiredness, despondency, burnout and depression – that do not contribute towards a health voice production[24].

In regard to the impact on the physical and global domains (before and after the intervention) the mean increased only slightly; this may have occurred due to the Speech-Language Pathology intervention having been short and thus not having allowed enough time for significant changes and promotion of vocal health; although it did not differ from the general profile of most Brazilian interventions on the vocal health of teachers that, according to Penteado and Ribas[15], would be a process, composed of three to five meetings, usually happening once a week, characterized by groups built upon propositions of courses, workshops or practical activities about voice. The periodicity of the meetings, that were monthly, has also proved a factor that generated difficulties in involvement and participation. Educational actions with shorter intervals may obtain more interesting and impacting results.

Still in regard to the low impact obtained in the study, it should be mentioned that the results are different from those found by an international study[11] with teachers with voice complaints that obtained a significant difference in the knowledge about voice production mechanisms when comparing periods before and after Speech-Language Pathology intervention. On the other hand, a recent study in Brazilian literature about educational processes in teachers' vocal health[15], alerts to the fact that the emphasis on the anatomy and physiology of phonation, on self-control of voice production and on the performance of exercises does not hide the tendency to Project, on the individual, the genesis and responsibility over the process of vocal health-disorder; so that the actions are, in general, developed in such a way that is not linked to quality of life, work and health conditions.

Finally, it must be considered that the use of the V-RQOL, as the only instrument to assess an intervention action may not be the best choice. The V-RQOL favors awareness and better perception regarding the voice, so that worse results, in a second completion of the instrument, may signal an improvement in perception and not necessarily worse voice conditions or worse impact of voice on quality of life.

Thus, it is suggested that, in further studies about the impact of an intervention, the V-RQOL be employed in association to other instruments and strategies.

CONCLUSION

The Speech-Language Pathology intervention enabled better perception about the voice, a decrease in some complaints and slight improvement of the impact of voice on quality of life, considering the physical and global domains of the V-RQOL.

Speech-Language Pathology interventions may bring on positive changes to voice in relation to the quality of life of teachers, but, as this action has been structured, it was not enough to promote vocal health in a broader perspective of the health-illness process and understanding of the relationships between health, work and quality of life.

The V-RQOL favors awareness and an increase in perception of the voice, so that, when assessing the impact of intervention actions, it is suggested that the V-RQOL be employed in association with other instruments and strategies.

RESUMO

Objetivo: verificar o impacto de uma ação fonoaudiológica na qualidade de vida em voz de professores. **Métodos:** estudo quase-experimental, de caráter quantitativo, realizado com 20 professores de Ensino Fundamental de três escolas da rede pública estadual de Goiânia (GO). Os professores responderam a um protocolo de Queixas Vocais e aqueles que apresentaram três queixas participaram de uma ação fonoaudiológica - três encontros mensais - em que foram abordados aspectos da produção vocal, das condições e da organização do trabalho docente. Nos momentos pré e pós ação fonoaudiológica forma aplicados os protocolos de Queixas Vocais e QVV-Qualidade de Vida em Voz. **Resultados:** quanto às queixas vocais, houve aumento das percepções referentes a perda da voz, sensação desagradável, alergias, irritações ou inflamações e falta de ar ao falar. Houve diminuição de: falhas na voz, ardor ou dor, pigarro e/ou tosse, esforço para falar e garganta seca. Em relação ao QVV, a autoavaliação vocal se manteve praticamente inalterada, mas houve pequeno aumento na média dos escores nos domínios global e físico e diminuição no domínio socioemocional. **Conclusão:** a ação fonoaudiológica favoreceu aumento das percepções sobre a voz, diminuição de algumas queixas e discreta melhora do impacto da voz na qualidade de vida, considerando-se os domínios físico e global do QVV.

DESCRITORES: Qualidade de Vida; Voz; Docentes

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